

FIG. 1a.

VALIDATION ENTITY
 $DA_j = S_{K_S}(K'_P, PH_j, AUX)$
 K_P K'_S

SIGNATURE ENTITY
 K_S

CERTIFICATION AUTHORITY

$E_{K_{kj}}$ T_k

V_j

$V_j \begin{Bmatrix} DA_j \\ K'_S \\ K_P \end{Bmatrix}$

K'_S DA_j K_P

Ca_k

$C_i = S_{K'_S}(a_{ij})$

a_{ij}

A_{ki}

$C_i, DA_j (K'_P) (VCK)$

B_i $K_P (K'_P)$ T_i Ca_i

V_i

$V_{K_P K'_P}(C_i, DA_j)$

BN $K_P (K'_P)$ N

FIG. 1b.

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graph TD
    1000[TRANSMIT A_ki] --> 1001[TRANSMIT a_ij]
    1001 --> 1002[1002  
CALCULATE  
C_i = S_K'S(a_ij)  
TRANSMIT  
C_i, DA_j(K'_P) (VCK)]
    Vj((V_j)) --> 1002
    1002 --> 1003[1003  
V_KP KP (C_i, DA_j) = V]
    Vi((V_i)) --> 1003
    1003 --> 1004{1004  
V =}
    1004 -- YES --> 1006[AUTHORISE ACCESS]
    1004 -- NO --> 1005[REFUSE ACCESS]
```

Flowchart illustrating a process:

- 1000: TRANSMIT A_{ki} (EK_{kj})
- 1001: TRANSMIT a_{ij} (B_i)
- 1002: CALCULATE $C_i = S_{K'S}(a_{ij})$, TRANSMIT $C_i, DA_j(K'_P) (VCK)$ (EK_{kj}). Input: V_j .
- 1003: $V_{KP KP} (C_i, DA_j) = V$ (B_i). Input: V_i .
- 1004: Decision diamond: $V =$.
 - YES: 1006: AUTHORISE ACCESS
 - NO: 1005: REFUSE ACCESS

FIG.1c.

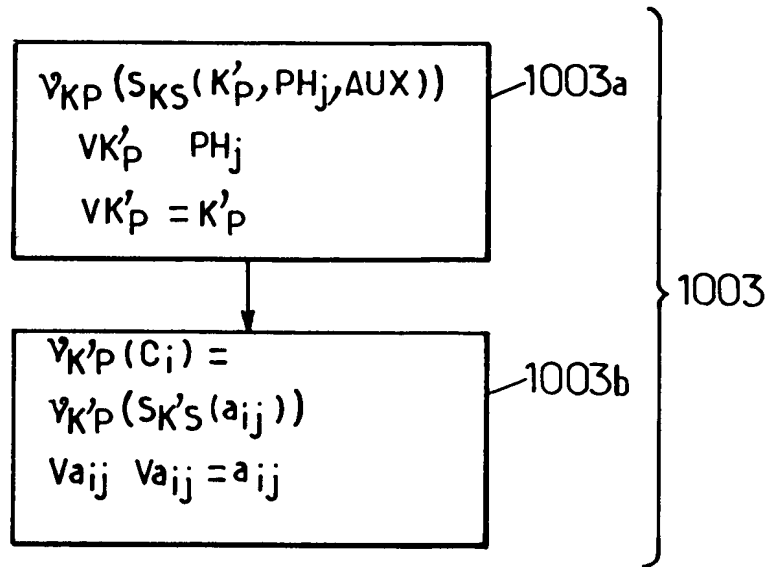


FIG.1d.

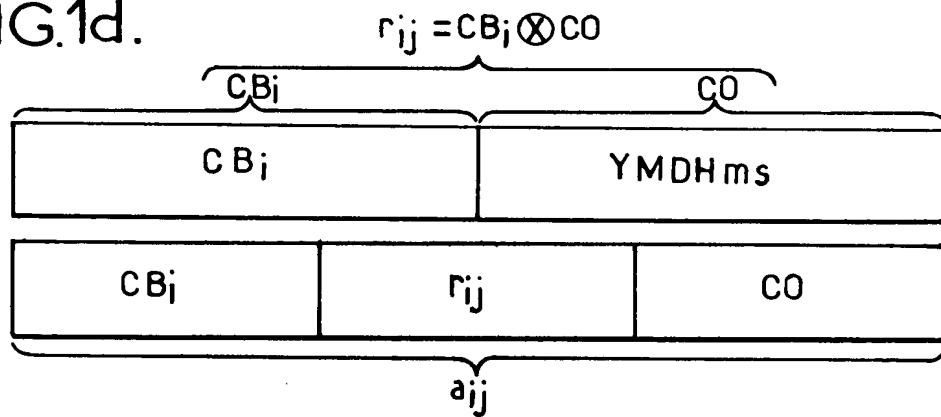
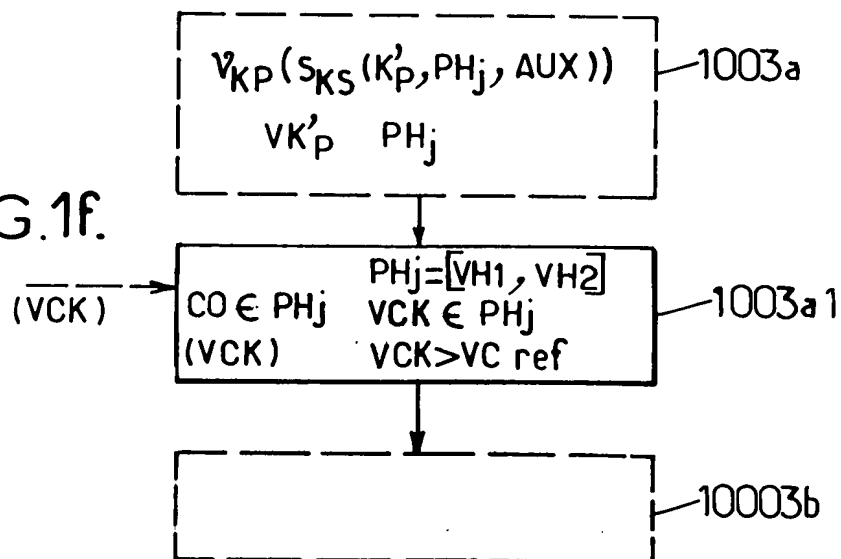


FIG.1f.



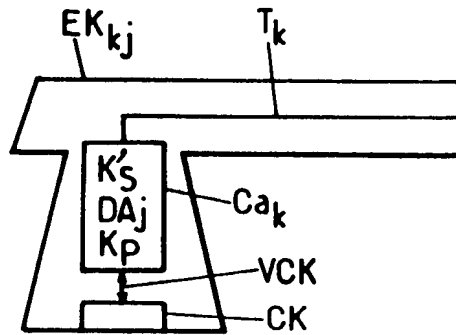


FIG. 1e.

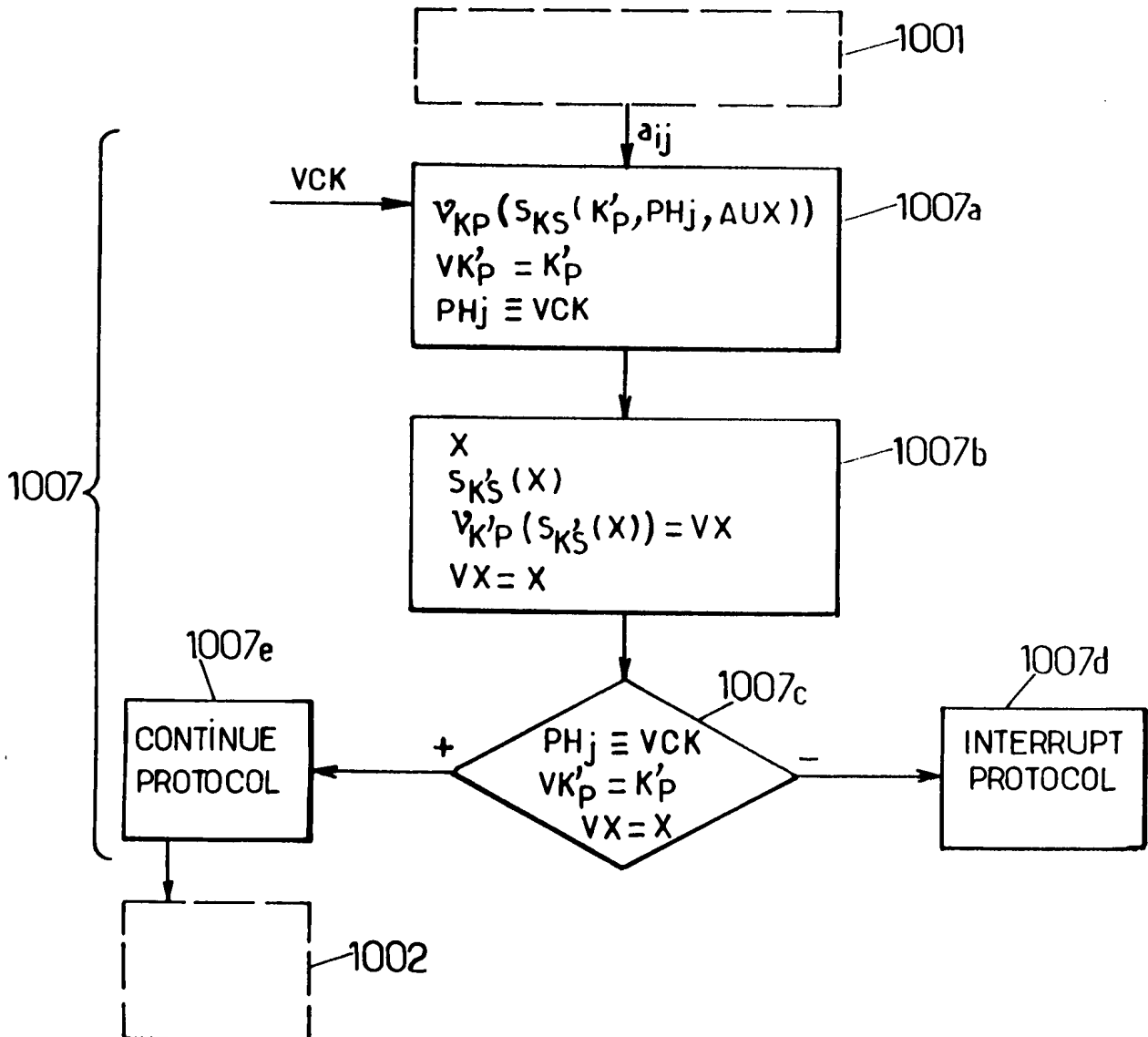


FIG. 1g.

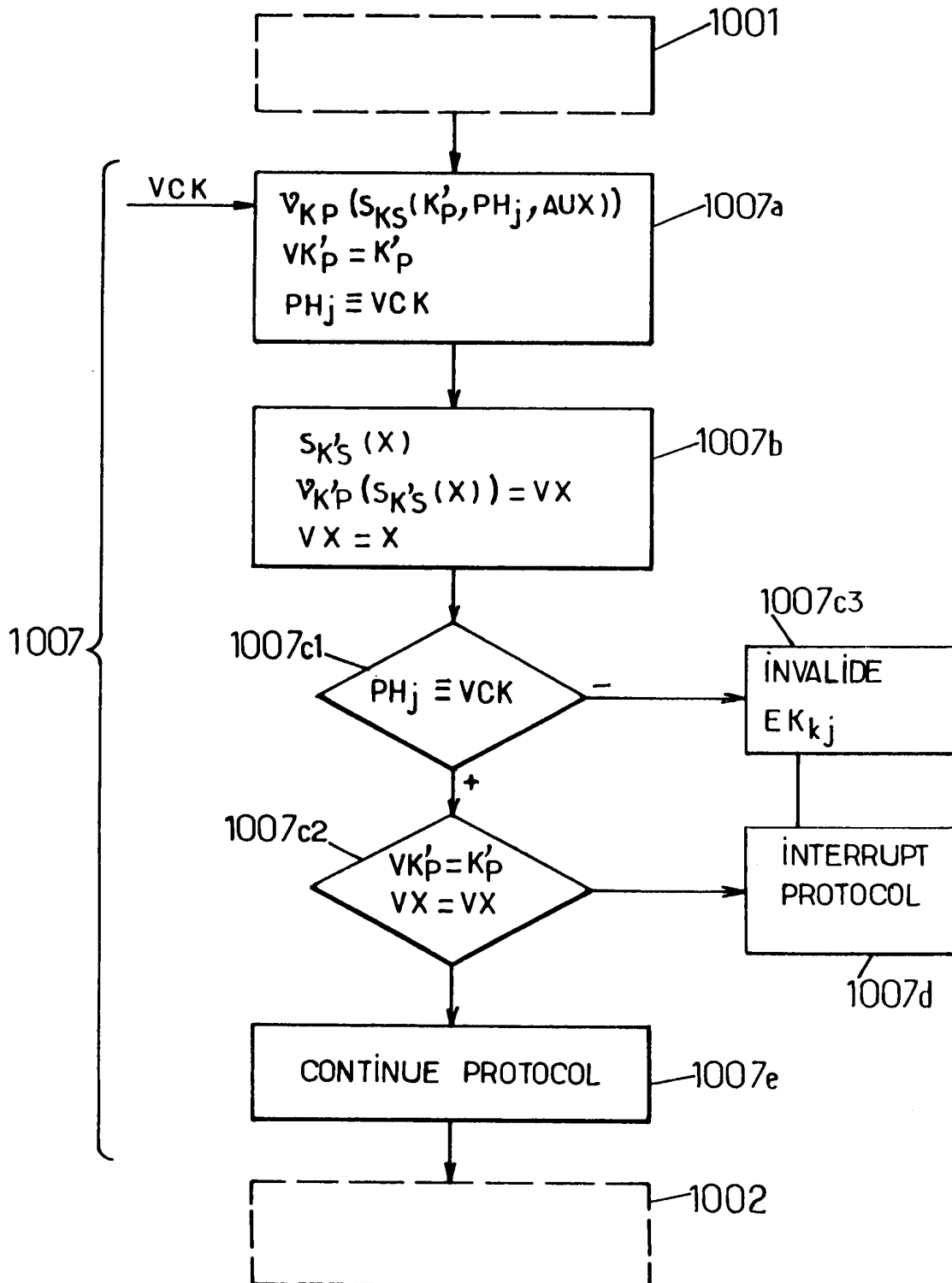


FIG. 2a.

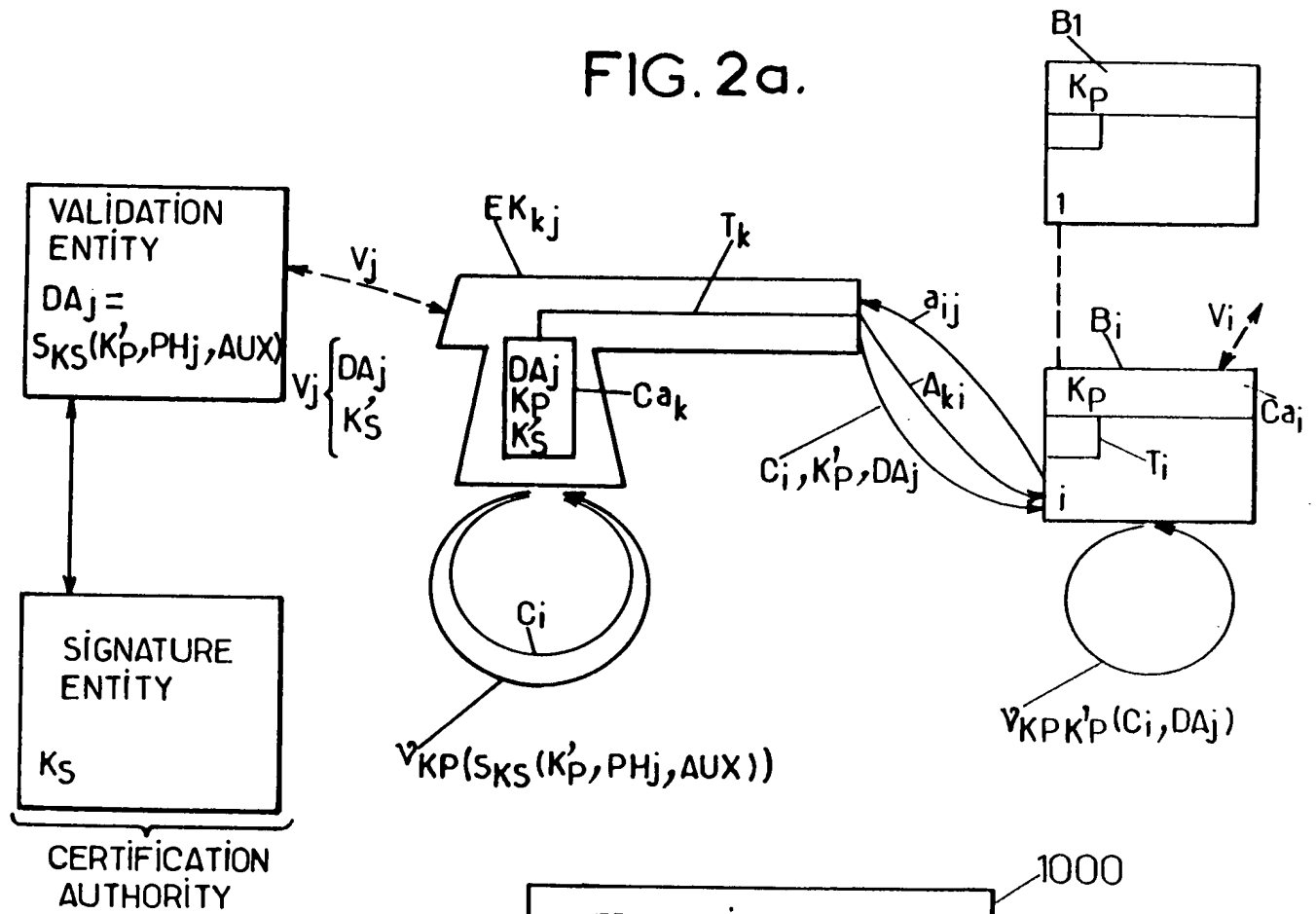


FIG. 2b.

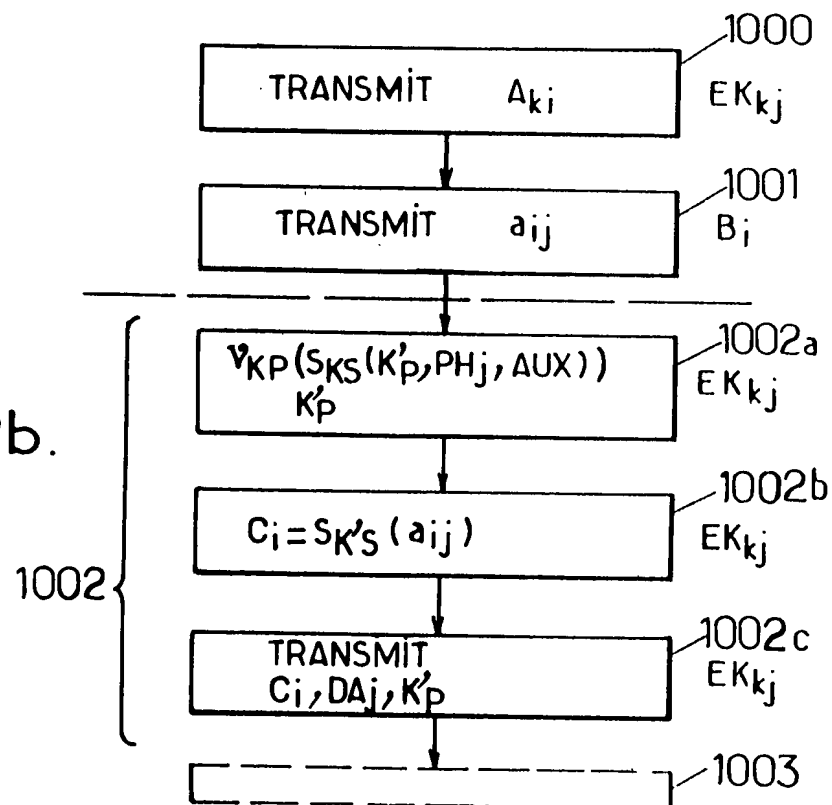


FIG. 3a.

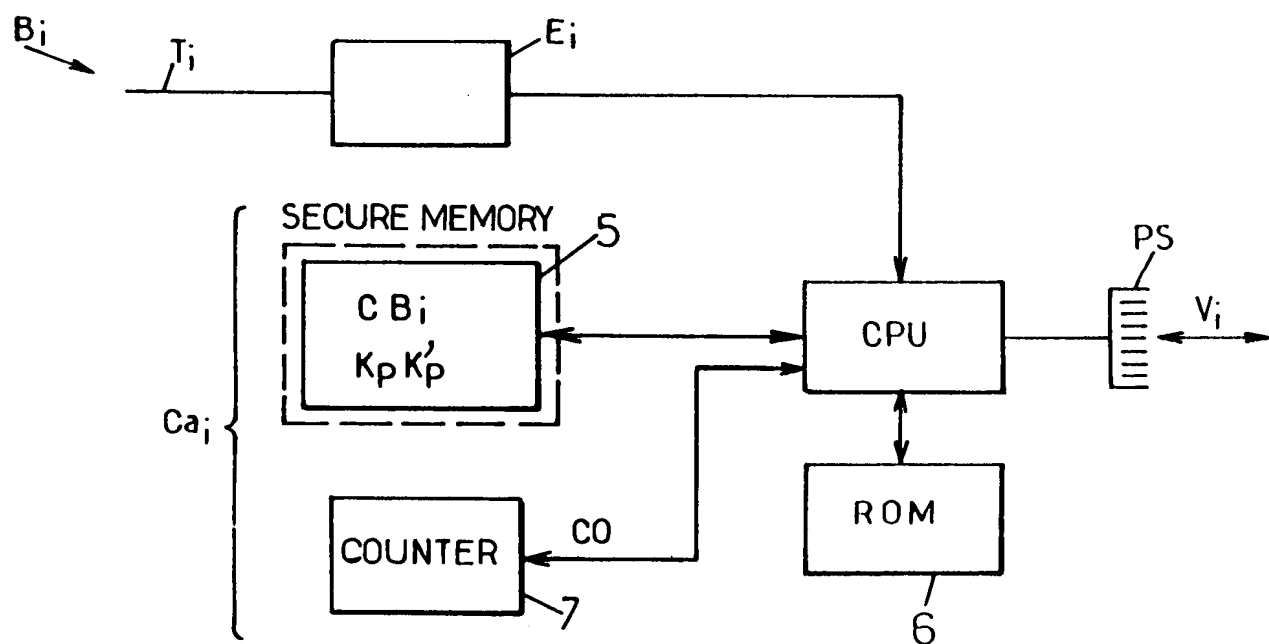
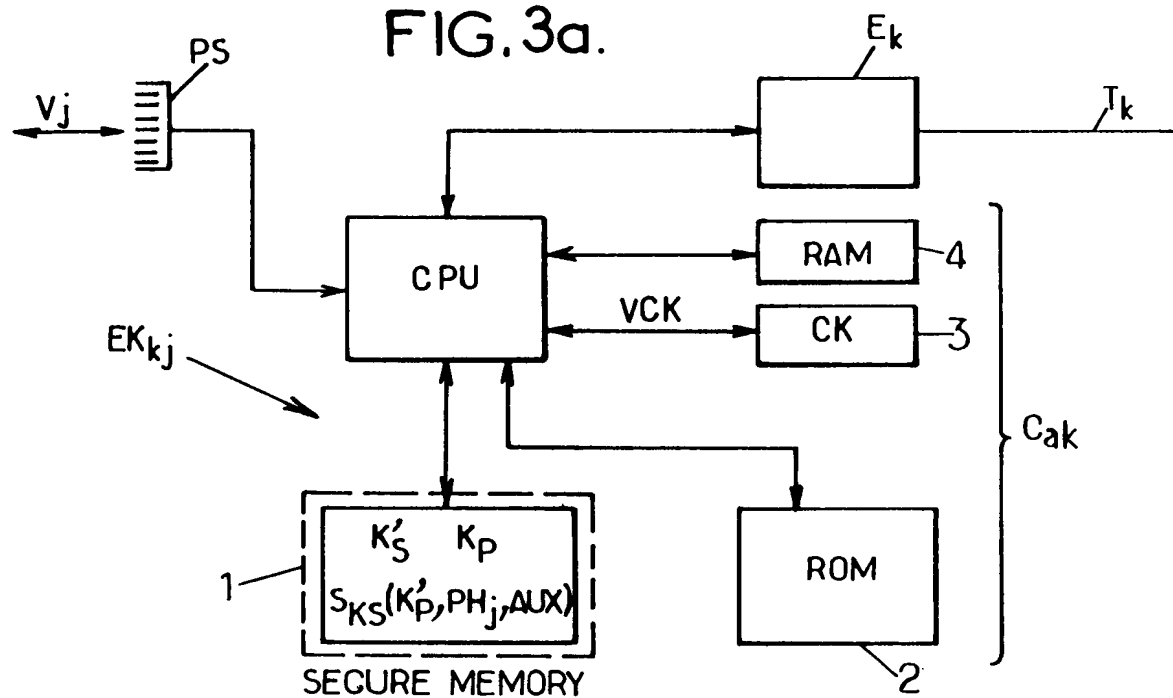


FIG. 3b.